**Quick Start Guide for Azure (Linux)** 

Arcserve<sup>®</sup> Live Migration



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- You can use our Live Chat link to instantly launch a real-time conversation between you and the Arcserve Support team. With Live Chat, you can get immediate answers to your concerns and questions, while still maintaining access to the product.
- You can participate in the Arcserve Global User Community to ask and answer questions, share tips and tricks, discuss best practices, and participate in conversations with your peers.
- You can open a support ticket. By opening a support ticket online, you can expect a callback from one of our experts in the product area you are inquiring about.

You can access other helpful resources appropriate for your Arcserve product.

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# **Chapter 1: Introduction**

Arcserve Live Migration simplifies the process of migrating data, applications, and workloads. It allows you to move virtually any type of data or workload to cloud, onpremises, or remote locations, such as the edge, with support for virtual, cloud and physical systems. An assured validation of the migrated workload completes the process of enabling customers to continue operations without risks of losing data.

You can easily migrate:

From	То
On-premises	Cloud
Cloud	Cloud
Cloud	On-premises
Physical	Physical
Physical	Virtual
Virtual	Virtual

Live Migration provides the following:

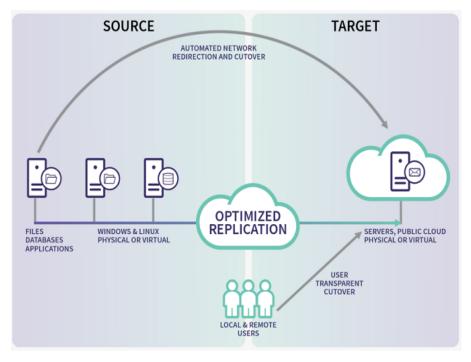
- Unlimited use of the Arcserve Live Migration technology enhanced by Arcserve Continuity Suite.
- Every source that you plan to migrate requires 1 license.
- Seamless access to the entitled software for a period of 90-days.
- On expiry of the license, new scenarios cannot be started, but the existing ones will continue.
- For each license, Live Migration provides free of cost technical assistance for two incidents.

**Note:** Arcserve currently does not provide professional services to help you with implementation, deployment, and any other migration services.

### **Overview**

Arcserve Live Migration automatically synchronizes files, databases, and applications on Windows and Linux systems with a second physical or virtual environment located on-premises, at a remote location, or in the cloud. After synchronization, changes are replicated in real time to ensure the source and target are in sync prior to the migration.

Encryption enables secure data transfers between local systems and remote locations without the need for a VPN, and automated network redirection makes the switchover process seamless with push-button cutover to ensure availability to the new production environment.



Your typical migration process includes the following steps:

- Install Components on Master
- Configure Microsoft Azure
- Provision VA on Microsoft Azure
- Install Engine on Replica
- Create Full System Scenario for Microsoft Azure
- Perform Assured Recovery Testing
- Perform Cut off/Switchover

## **Terminologies**

This document uses the following terminologies:

- Virtual Appliance: This is a virtual machine that acts as the Replication/Migration proxy server (install the Arcserve Continuity Suite Engine here and deploy on the hypervisor/cloud destination). If you are using a Hyper-V virtual platform, the Virtual Platform Hostname/IP field is disabled (appears dim).
- Control Service: Control Service is a management component of Arcserve Continuity Suite. It is a Windows based service that must be deployed first. It hosts web-based information portal and rich Management UI, which is used for creating and monitoring migration scenarios.
- Engine: Replication Engine is a background service that moves data from source to destination during migration. Install the Engine on any source that you plan to migrate. You may use the Remote Installer feature to mass deploy Engines.
- FSHA: Full System High Availability (FSHA) is a scenario type that allows replication and fail-over of full server. This scenario type is used for migrating full systems.
- Management UI: A UI that you use for creating and managing replication/migration scenarios. The Control Server hosts the Management UI. To start the Management UI, log into the Management Portal.
- Master (Source): A host/computer that you want to migrate. You can migrate the whole system using the full system migration scenario or the host containing the applications.
- PowerShell: Arcserve offers PowerShell Command Line Interface as an alternative if you do not want to manage the replication process using the Manager graphic user interface.
- Replica (Target): In case of full system migration, VA (replication proxy) serves as a Replica. Upon completion, VA spins off new VM containing replicated disks or data. For application-based scenarios, the VA hosts and runs replicated application and data.
- Scenario: A configuration unit describing migration job/task. You can create and manage scenarios using rich management GUI or PowerShell CLI. Scenarios contain key information about replication/migration jobs to be performed.

- Switchover: The cutover to the newly migrated workload from where the operations can begin.
- Synchronization: The process of making the set of files identical on the Master and Replica servers. It is usually necessary to synchronize the Master and Replica as the initial step of a replication/migration scenario.
- Virtual Platform Host: The machine that hosts the Appliance VM, which acts as a Replica server. Based on the scenario type, it acts as a local hypervisor or cloud platform (AWS or Azure).

## **Requirements**

Before you migrate, make sure to meet the following requirements:

Arcserve Live Migration supports both Windows and Linux operating systems for Full System migration scenarios. If the source host is Windows, then the Virtual Appliance (VA) must be Windows; if the source host is Linux, then the VA must be Linux as well.

**Note:** Before deploying Arcserve Live Migration scenarios, see <u>Limitations</u> in Release Notes.

 When migrating workloads to Azure, corresponding Azure cloud credentials must be registered in Arcserve Continuity Suite Management UI.

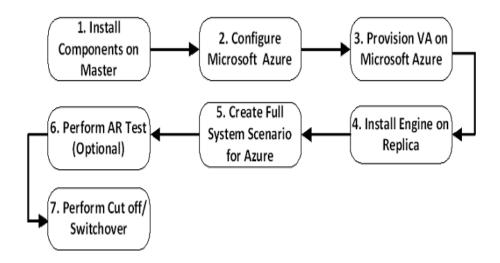
# **Software Compatibility**

For more information about compatibility, see Compatibility Matrix.

**Note:** Make sure that your source OS and application versions are explicitly listed on the support matrix.

# **Chapter 2: Perform Live Migration**

The following flowchart provides the Live Migration process given in this document:



# **Install Components on Master**

This section describes how to install the Arcserve Continuity Suite Control Service and Engine on Master.

## **Installing Control Service**

The Control Service component functions as the single-point-of-control that contains the entire dataset of the existing scenarios. Control Service communicates with the Engines and the Managers. It is responsible for the management of all scenario-related-tasks such as creation, configuration, monitoring, and running of the scenarios.

### Follow these steps:

- 1. Download <u>RHA iso for Continuity Suite</u>, and then open the folder.
- 2. From the mounted directory, double-click **Setup**.

Name	Date modified	Туре	Size
Nonic	Ducembulled	type	5120
Bin	4/20/2020 1:11 AM	File folder	
BMR	4/20/2020 2:52 AM	File folder	
Destrib	4/20/2020 1:11 AM	File folder	
Install	4/20/2020 1:12 AM	File folder	
UNIX_Linux	4/20/2020 2:39 AM	File folder	
autorun	3/12/2018 2:45 AM	Setup Information	1 KB
😳 main	3/12/2018 2:45 AM	lcon	63 KB
🛐 Setup	3/12/2018 2:45 AM	Application	131 KB
📓 Setup	3/12/2018 2:45 AM	Configuration sett	1 KB

3. On the Arcserve Continuity Suite installation wizard, click **Install Components**.

# **arcserve**<sup>®</sup> Continuity Suite

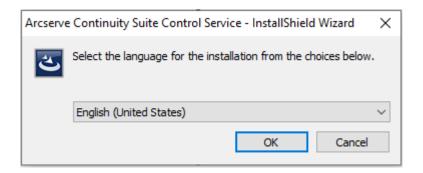


The wizard displays the components.

4. Click Install Control Service.

arcse	<b>Prve</b> ® Continuity Suite
Install Components Documents	Install Control Service     Install Engine
Support Information Browse the CD	-Install PowerShell Snap-in
	Main Menu Exit

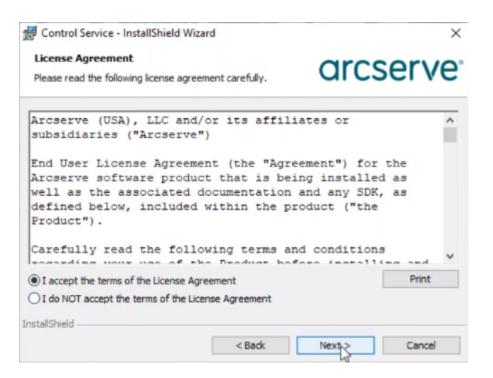
5. On the Arcserve Continuity Suite Control Service - InstallShield Wizard, from the drop-down list, select your preferred language, and then click **OK**.



After the initial process is complete, the Welcome page appears.

付 Control Service - InstallSh	ield Wizard X
	Welcome to the InstallShield Wizard for Arcserve Continuity Suite Control Service
arcserve	The InstallShield(R) Wizard will install Arcserve Continuity Suite Control Service on your computer. To continue, dick Next.
Continuity Suite	
	WARNING: This program is protected by copyright law and international treaties.
	< Back Next > Cancel

- 6. Click Next.
- On the License Agreement page, read the terms of the License Agreement, select the I accept the terms of the License Agreement option, and then click Next.



8. On the Customer Information page, enter a user name, and then click Next.

Control Service - InstallShield Wizard	ł		×
Customer Information Please enter your information.		arcs	serve <sup>.</sup>
<u>U</u> ser Name: Windows User Organization:			
InstallShield	< <u>B</u> ack	<u>N</u> ext >	Cancel

9. On the Destination Folder page, retain the defaults, and then click **Next**. To change the destination folder, click **Change**.

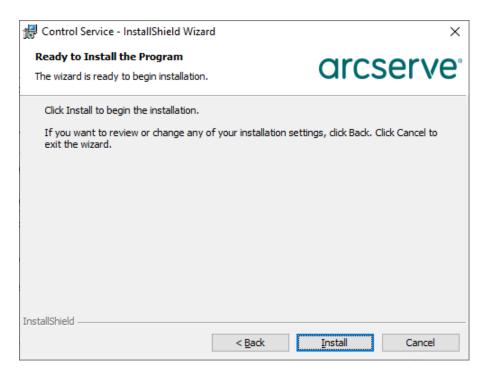
👘 Control	Service - InstallShield Wizard	×
	<b>on Folder</b> to install to this folder, or click Change to install to a older.	arcserve
Þ	Install Arcserve Continuity Suite Control Service to C:\Program Files (x86)\Arcserve\RHA\Manager\	<u>C</u> hange
InstallShield -	< Back	Next > Cancel

**Note:** The default installation directory is: *C*:\*Program Files (x86)*\*Arc-serve*\*RHA*\*Manager*. All executables, DLLs and configuration files are located within the INSTALLDIR.

10. For the upcoming screens, retain the defaults, and then click **Next** to continue.

**Note:** For more information about how to configure SSL Configuration, Service Logon Information, and Control Service Role, see <u>Install a Control Service for a Standard Operation</u>.

11. On the Ready to Install the Program page, click Install.



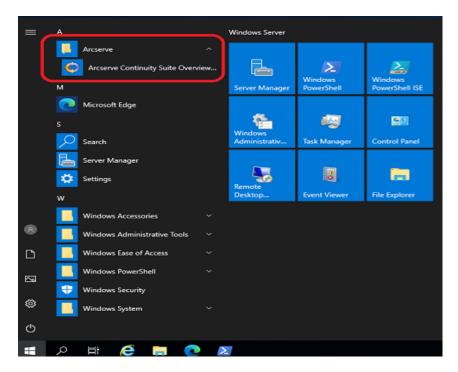
**Note:** Click the **Back** button to return to the previous pages and change any configuration as needed.

12. After installation is complete, click **Finish** to close the wizard.

🖟 Control Service - InstallShi	eld Wizard	×
	InstallShield Wizard Completed	
<b>arcserve</b> Continuity Suite	The InstallShield Wizard has successfully installed Arcserve Continuity Suite Control Service. Click Finish to exit the wizard.	
	< <u>B</u> ack <u>Finish</u> Cancel	

The Arcserve Continuity Suite Control Service is installed.

 To open Control Service in a web portal, go to Start > Arcserve > Arcserve Continuity Suite Overview.



The web portal opens in a browser.

💿 🧭 http://shval01-vm125:0088/entry_point.asprl/width=1366 agin to Arcserve Continuity S 🎯 Login to Arcserve Continuity S 🙆 Login to Arcs	erve Continuit × 📑		+ C Search	P- û ☆ @
				Help
	<b>Continuity Suite</b>	User Name: Password: Domain:	Log In	
	Copyright (C) 1999-2020 Answerve (US	A), LLC. All rights reserved		
				Activate Windows

## **Installing Engine**

Make sure that the Engine component, which is a service, is running before you start any scenario. Install Engine on every server participating in any given scenario such as the Master (source) and Replica (target) hosts. Each Engine supports both Master and Replica functionality in addition to both Replication and High Availability scenarios. It may participate in multiple scenarios and serve in a different role for each scenario. You can install Engines one by one locally on each host, or concurrently through a remote installer on numerous hosts. You can also install it during scenario creation if needed.

### Follow these steps:

1. To extract installation package and start the engine installation, copy *arc-serverha.tar* to your host, and then run the command as a root user.

**Note:** The script in the following example uses the command for installation of RHEL 8 package.

tar xvf arcserverha.tar && tar zxf arcserverha-18.3-0.7024.rhel8.tgz && cd arcserverha && ./install.sh

The installation script for the Continuity Suite Engine is install.sh. When you run this script without any option, it initiates the interactive installation process. For silent or non-interactive installation, use install.sh -q or install.sh -y. The following illustration lists additional customization options that you can use with install.sh.

Usage:	
install.sh [options]	
Where options is	
-L,license= <agree n=""></agree>	Agree to license*
-c g,caarha-group= <y n=""></y>	Create caarha group if it does not exist.
-o,enable-oracle= <y n=""></y>	Enable oracle support (default is no)
-u,oracle-user= <user></user>	Specfiy oracle user (req'd for oracle support)
-h,ora-home= <path></path>	Force ORACLE_HOME if not in user's environment
-b,ora-base= <path></path>	Force ORACLE_BASE if not in user's environment
-i,install	Install Arcserve Continuity Suite (Answer 'yes' to install)
-q y,quiet	Perform a default installation.
	<ul> <li>ack and don't display license</li> </ul>
	<ul> <li>ensure caarha group exists or is created</li> </ul>
	<ul> <li>oracle support is not installed</li> </ul>
	- language is auto detected.
-l,language= <lang></lang>	Specify language, default is C.UTF-8
-f,firewall	Open firewall port 25000
-v,virtual	Install Virtual Appliance packages."
-F,force	Install even if scenario is running."
NOTE: You must be an admin (roo	t) to install.

2. To provide your consent during interactive installation, do the following:

a. To continue with the installation and accept End User License Agreement, type YES and press Enter.

Do you accept Arcserve End User License Agreement?[YES]yes

b. If you already have the Continuity Suite Engine previously installed, a prompt appears that needs your confirmation for product upgrade. To upgrade, type YES and press Enter.

```
Continuity Suite 18.0-0.5503 is already installed.
Do you want to upgrade Continuity Suite to 18.3-0.7024?[YES]
```

c. If you plan to use the given host as proxy and install Virtual Appliance packages in Full System HA scenarios, type YES and press Enter.

Install packages needed to act as Virtual Appliance for Full System HA?[NO]yes

d. To confirm user group creation for Continuity Suite Engine, type YES and press Enter.

**Note:** By default, only a root user can authenticate and manage Continuity Suite Engine. Non-root users must be listed in the group to be able to authenticate and manage Continuity Suite Engine.

```
Create "caarha" group?[YES]yes
```

e. To replicate Oracle and enable its support, type YES and press Enter. The default option is NO.

```
Enable Oracle support[NO]
```

f. To select the language, type the number corresponding to the specified language, and then press Enter.



g. To allow firewall port to be opened for the engine, type YES and press Enter.

The default port value is 25000.

**Note:** If you plan to use a different port, type NO and later change the engine port manually in the /opt/Arcserve/RHA/bin/ws\_rep.cfg file, and then open the corresponding firewall port.

Open firewall port 25000? [YES]

h. If you want to enable latest product updates, type YES and press Enter.
 The default option is NO.

Check for latest product updates (recommended)?[NO]

- 3. Do the following NAT settings:
  - a. On the Master server, run the following command in /opt/Arcserve/RHA/bin:

./natutl

- b. To check if any machines are added, run the following command: nat.list
- c. To add the NAT settings, run the following command:

nat.addhost <VA IP address> 25000

d. To apply the NAT settings, run the following command:

nat.apply

e. To check whether the Master can communicate, run the following command:

telnet <VA IP address> 25000

### Notes:

- If you decide to enable Oracle support, you must provide information such as Oracle Owner, Oracle Home path, and Oracle Base path. The Oracle Owner is primarily required as it allows the product to retrieve the Home path and Base path information using the Oracle Owner user environment. If the Home path and Base path information cannot be found, then you must manually add them. On Solaris, if your Oracle server is installed without the 32-bit Oracle client library, then you must also provide the Oracle Instant Client path.
- Although the Arcserve Continuity Suite package is installed, you are prompted to reinstall it.
- To allow non-root users to manage scenarios, you must create the "caarha" group on your machine and make sure the group works with the supplementary group.

The Arcserve Continuity Suite Engine is installed.

## **Configure Microsoft Azure**

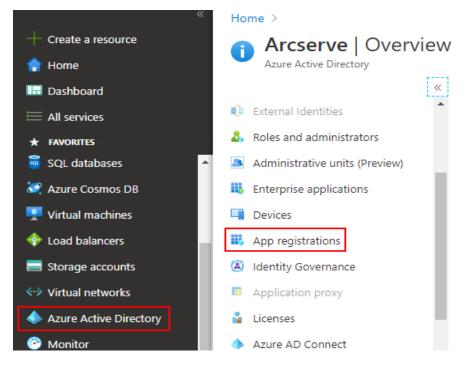
Arcserve Replication and High Availability needs some of the Azure properties for the Full System scenario to work with Azure. Before adding an account in the Continuity Suite manager, you need to configure Microsoft Azure, which includes generating the following account information:

- E-mail Address
- Subscription ID
- Tenant ID (Directory ID)
- Application ID
- Client Key

First, prepare the Azure cloud account, and then add the account in Continuity Suite Manager.

### To configure an Azure Cloud account, follow these steps:

- 1. Perform the following steps to register an Azure Active Directory application:
  - a. Log into the <u>Azure portal</u>.
  - b. From the left pane, select **Azure Active Directory**, and then click **App** registrations.



c. On the Arcserve- App registrations page, click New registration.

Home > Arcserve - App registrations			
Arcserve - App registration	ons	Â	Х
	+ New registration 🕀 Endpoints 🤌 Troubleshooting 🔁 App registrations (Legacy) 🛛 🛇 Got feedback?		
0 Overview	f i Welcome to the new and improved App registrations (now Generally Available). See what's new and learn more on how it's changed. $ o$		
💉 Getting started	All applications Owned applications		

- d. On the Register an application page, do the following, and then click **Register**:
  - Name Enter a name for the application.
  - Supported account types Select a supported account type, which determines who can use the application.
  - Redirect URI (optional) Select Web or Public client (mobile & desktop) for the type of application you are creating, and then enter the redirect URI for your application.

Register an application	
* Name	
The user-facing display name for this application (this can be changed later).	
Supported account types	
Who can use this application or access this API?	
Accounts in this organizational directory only (Arcserve only - Single tenant)	
O Accounts in any organizational directory (Any Azure AD directory - Multitenant)	
O Accounts in any organizational directory (Any Azure AD directory - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)	
Help me choose	
Redirect URI (optional)	
We'll return the authentication response to this URI after successfully authenticating the user. Providing this now is optional and it can be changed later, but a value is required for most authentication scenarios.	
Web Veg. https://myapp.com/auth	
By proceeding, you agree to the Microsoft Platform Policies 🖓 Register	

e. On the search bar, type subscriptions, and then from the list, click **Sub**scriptions.

𝒫 subscriptions	X
Services	Marketplace
📍 Subscriptions	ᆸ SharpCloud Subscriptions
Event Grid Subscriptions	officeatwork   Premium Support Subscription
间 Resource groups	🗳 OfficeTechHub Azure Subscription Management
O Manage subscriptions in the Billing/Account Center	🗴 MedStack Control Annual Subscription
Resources	Documentation

f. On the Subscriptions pages, select the subscription for your application.

lome >									
Subscriptions 🖈								Documentation @	)
+ Add									
		based access control (RBAC) permissions to ma t see a subscription? Switch directories	nage Azure i	resources. To view su	bscriptions fo	r which you have billing	access, click here		
My role 🕕	,			Status 🕕					
8 selected			V	3 selected					V
Apply									
	Show only sub	scriptions selected in the global subscriptions fil	lter 🛈						
Showing 1 of 1 subscriptions 🧹	Show only sub	scriptions selected in the global subscriptions fil	lter ()						
		scriptions selected in the global subscriptions fil	lter () ↑↓	My role	↑↓	Current cost	Status	ŶJ	

**Note:** If the subscription list does not display the required subscription, select **global subscriptions filter**. Make sure the subscription you want is selected for the portal.

g. From Subscriptions, go to Access control (IAM) > Check access, and the click Add from the Add a role assignment box.

 $\times$ 

Home $>$ Subscriptions $>$	
Access c	ontrol (IAM)
₽ Search (Ctrl+/) «	🕂 Add 🞍 Download role assignments (preview) 📰 Edit columns 🖒 Refresh   🗙 Remove   🛇 Got feedback?
Overview	Check access Role assignments Deny assignments Classic administrators Roles
Activity log	Creck access Note assignments Deny assignments Classic administrators Notes
Access control (IAM)	Check access
🔶 Tags	Review the level of access a user, group, service principal, or managed identity has to this resource. Learn more d <sup>a</sup>
Diagnose and solve problems	Find (i) Grant access to resources at this scope by assigning a role to a user, group, service
🜻 Security	Azure AD user, group, or service principal
🦻 Events 📃	Search by name or email address
Cost Management	Add Learn more 🖓

- h. On the Add role assignment page, do the following, and then click **Save**:
  - Role Select the role you want to assign to the application.
  - Assign access to Leave it as default.
  - Select By default, the Azure AD applications do not display in the available options. To find your application, search for the name, and then select it.

Add	role	assignment	

Contributor 🛈		$\sim$
Assign access to 🔅		
Azure AD user, grou	ıp, or service principal	$\sim$
Select 🕡		
- PT-sale-		
No users, groups, o	r service principals found	
Selected members:		
Selected members:		
Selected members:	and a state of the second	_
Selected members:	n - Marine Belgarine (Benefit - 1930) and - 1113 and	Remove
Selected members:	an a	Remove
Selected members:	an an the second se	Remove

The Azure Active Directory application is registered, and a role has been assigned to it successfully.

Now, you can perform the next steps using the registered application to get the required IDs and Key.

- 2. To get the Subscription ID<sup>1</sup>, follow these steps:
  - a. From the left navigation pane of Azure portal, click Subscriptions.

The list of your subscriptions is displayed along with the subscription ID.

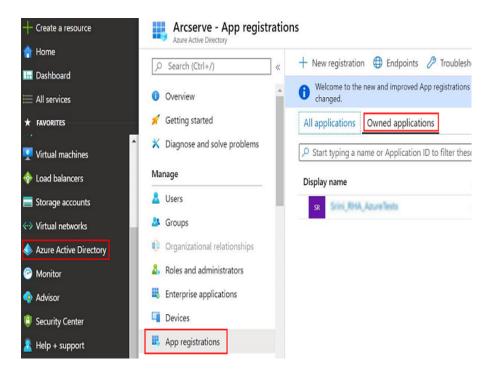
Subscriptions						Doc
Subscriptions Arcserve						
+ Add						
Showing subscriptions in Arc	serve. Dor	n't see a subscription? Switch d	irectories			
My role 🕕			Status 🤅	)		
8 selected			✓ 3 select	ed		
Apply	, kindy	0.0	No. Bly tols	Correct cost	500	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	V Sho	w only subscriptions selected i	n the global subscriptions fil	ter ①		
Showing 1 of 1 subscriptions						
Showing 1 of 1 subscriptions						
	↑↓	Subscription ID	î↓ Myrole	î↓	Current cost	Status

- b. Copy the subscription ID, which is used while adding the account in Continuity Suite Manager.
- 3. To get the Tenant  $ID^2$  and Application  $ID^3$ , follow these steps:
  - a. Navigate to Azure Active Directory > App registrations > Owned applications, and then select your application.

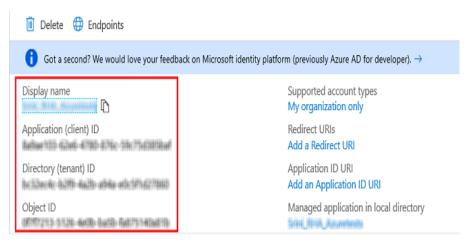
<sup>1</sup>The Subscription ID refers to a GUID (Globally Unique Identifier) that uniquely identifies your subscription to use Azure services.

<sup>2</sup>Tenant ID refers to the ID of the Azure Active Directory where you created the application registration. Tenant ID is called Directory ID inside Azure Active Directory Properties.

<sup>3</sup>An Application ID refers to a GUID that uniquely identifies the app's registration in the Azure Active Directory tenant. Sometimes, it is also referred as Client ID.



b. Copy the Tenant ID and Application ID, which are used while adding the account in the Continuity Suite Manager.



- 4. To get the Client secret<sup>1</sup>, follow these steps:
  - On the App registrations page, select the application, navigate to Certificates & secrets on the left pane, and then click New client secret to add a client secret.

<sup>&</sup>lt;sup>1</sup>Client secret is referred as an authentication key in Azure.

Home $>$ Arcserve   App registrations $>$			
🔶 🖦 🖛   Certificates &	रे secrets ≉		
₽ Search (Ctrl+/) «	Certificates		
B Overview	Certificates can be used as secrets to p	prove the application's identity when requesting a toke	n. Also can be referred to as public keys.
😃 Quickstart	T Upload certificate		
🚀 Integration assistant (preview)	Thumbprint	Start date	Expires
Manage	No certificates have been added for th	is application.	
Branding			
∋ Authentication			
📍 Certificates & secrets	Client secrets		
Token configuration	A secret string that the application use	es to prove its identity when requesting a token. Also ca	an be referred to as application password.
<ul> <li>API permissions</li> </ul>	+New client secret		
Expose an API	Description	Expires	Value
Owners	No client secrets have been created fo	r this application.	

b. On the Add a client secret page, enter the description, select the expiry interval, and then click **Add**.

Add a client secret		
Description		
Srini Azunetesi		
Expires In 1 year In 2 years Never		
Add Cancel		

The client secret value is displayed.

📍 🖮 - Certificates & secr	ets		
	Copy the new client secret value. You won't t	e able to retrieve it after you perform another operation or leave t	his blade.
Cverview		nselves to the authentication service when receiving tokens at g a certificate (instead of a client secret) as a credential.	t a web addressable loca
<i>Q</i> uickstart	Certificates		
Manage	Certificates can be used as secrets to prove the	application's identity when requesting a token. Also can be r	eferred to as public keys
😑 Branding	The second s	approxime a dentry interneddesong a talen niso tal de l	
Output Authentication	· · · · · · · · · · · · ·		
📍 Certificates & secrets	No certificates have been added for this applic	ation.	
Token configuration (preview)	Thumbprint	Start Date	Expires
<ul> <li>API permissions</li> </ul>			
Expose an API	Client secrets		
E Owners	A secret string that the application uses to pro	ve its identity when requesting a token. Also can be referred t	o as application passwo
Roles and administrators (Pr	+ New client secret		
🔟 Manifest	Description	Expires Value	
Support + Troubleshooting	Srini Appretent	1/9/2022	

Important! Copy and save this value as you cannot retrieve it later.

The Azure account for Live Migration is now configured.

## **Provision VA on Microsoft Azure**

The Continuity Suite Virtual Appliance (VA) is a VM running on the virtualization platform or cloud where you want to replicate the Master servers. The VA acts as Replica in a Continuity Suite Full System scenario. The Master server is replicated to this virtualization platform or cloud. However, the Disaster Recovery VM of Master server starts and runs on this virtualization platform or cloud for multiple reasons, such as Assured Recovery testing, Switchover, and Start VM.

### Follow these steps:

- 1. Log into the <u>Azure Portal</u>.
- 2. Search for virtual machines in the search bar, and then select **Virtual machines**.

Microsoft Azure	${\cal P}$ virtual machines	Х 🛛 🖟 Ф	0
Azure s	Services          Virtual machines         Virtual machines (classic)         SQL virtual machines         Virtual machines         Virtual machine scale sets	See all Marketplace See Managed Azure Virtual Machines KoçSistem Azure Virtual Machines Management Red Hat Enterprise Linux 7 Exact Synergy (virtual machine)	all D RV
<b>Recent</b> Name	Virtual networks     CloudSimple Virtual Machines     Recovery Services vaults     Free services	Documentation See Overview of Windows VMs in Azure - Azure Windows Virtual Ddv4 and Ddsv4-series - Azure Virtual Machines   Microsoft Server-side encryption of Azure Managed Disks - Azure CLI	en
<ul> <li>techpi</li> <li>uSbuil</li> <li>archivi</li> </ul>	Virtual clusters Virtual WANs Resources No results were found.	VM sizes in Azure - Azure Windows Virtual Machines Resource Groups No results were found.	s ; s ; s ;
	Searching all subscriptions. Change		

3. On the Virtual machines page, click **Add**, and then click **Virtual machine**.



The Create a virtual machine page appears.

### Create a virtual machine

Basics Disks Networking Management Advanced Tags	Review + create
Create a virtual machine that runs Linux or Windows. Select an image from Azu image. Complete the Basics tab then Review + create to provision a virtual mar for full customization. Learn more	
Project details	
Select the subscription to manage deployed resources and costs. Use resource your resources.	groups like folders to organize and manage all
Subscription * ① Archiving	~
Resource group * () (New) Resource group	

4. On the Basics tab, under Project details, do the following:

Create new

- Subscription Select the correct subscription.
- Resource group Select the existed resource group from the dropdown list or click Create new to create a new resource group. Enter a name for the resource group, and then click OK.

#### Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * (i)	Archiving	$\vee$
Resource group * (i)	(New) Resource group	$\vee$
	Create new	
Instance details	A resource group is a container that holds related	
Virtual machine name * (i)	resources for an Azure solution.	
Region * ①	Name *	$\vee$
Availability options 🕕		$\vee$
Review + create < P	Orevic OK Cancel	

5. Under Instance details, do the following, and retain defaults for the remaining fields:

- Virtual machine name Enter a name for the virtual machine.
- Region Select the required region.
- Image Select the required image.

Instance details		
Virtual machine name * (i)	TestVM	$\checkmark$
Region * ①	(Asia Pacific) Southeast Asia	$\vee$
Availability options ①	No infrastructure redundancy required	$\vee$
Image * 🛈	Ubuntu Server 18.04 LTS - Gen1 Browse all public and private images	$\vee$
Azure Spot instance (i)	🔿 Yes 💿 No	
Size * (i)	Standard_D2s_v3 - 2 vcpus, 8 GiB memory (\$91.25/month)	$\vee$
	Select size	

6. Under Administrator account, select the Authentication type as **Password**, and then provide a user name and password.

**Note:** The password must be at least 12 characters long and meet the defined complexity requirements.

Confirm password * 🛈		$\checkmark$
Password * (i)		~
Username * 🛈	Azureuser	~
Authentication type (i)	🔘 SSH public key 💿 Password	
Administrator account		

- 7. Under Inbound port rules, do the following:
  - Public inbound ports Select Allow selected ports.
  - Select inbound ports From the drop-down list, select all the inbound ports so that all the ports get enabled when you use this option.

Inbound port rules		
Select which virtual machine network port network access on the Networking tab.	s are accessible from the public internet. You can specify more limited or granula	ər
Public inbound ports * $\widehat{\scriptscriptstyle 0}$	○ None ● Allow selected ports	
Select inbound ports *	HTTP (80), HTTPS (443), SSH (22)	$\vee$
	This will allow all IP addresses to access your virtual machine. This is onl recommended for testing. Use the Advanced controls in the Networking to to create rules to limit inbound traffic to known IP addresses.	

- 8. Retain defaults for the remaining fields, and then click Next: Disks.
- 9. On the Disks tab, we recommend using the default settings, however you may make changes as needed, and then click **Next: Networking**.

Basics	Disks	Networking	Management	Advanced	Tags	Review + create	
						n storage. You can attach additional r of data disks allowed. Learn more	data disks.
Disk op	tions						
OS disk	type * 🕠		Premium	SSD			$\sim$
Encrypti	ion type *		(Default)	Encryption at-r	est with a	platform-managed key	$\sim$
Enable U	Jltra Disk	compatibility 🛈	🔿 Yes (	No No			
			Ultra Disk (	compatibility is	not avai	lable for this VM size and location.	
Data di	sks						25
You can tempora		onfigure addition	al data disks for yo	ur virtual mach	ine or att	ach existing disks. This VM also com	es with a
LUN	Ν	lame	Size (GiB	) Disk	type	Host caching	
Create a	nd attach	a new disk 🛛 Ai	ttach an existing dis	ik			
Review	w + create		< Previous	Next : Network	(ing >	]	

10. On the Networking tab, we recommend using the default settings, however you may make changes as needed, and then click **Next: Management**.

Basics Disks Network	<b>king</b> Management	Advanced T	ags Revie	ew + create		
Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can control ports, inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution. Learn more						
Network interface						
When creating a virtual machi	ne, a network interface w	vill be created for yo	ou.			
Virtual network * 🕕		hpubs-vnet		~		
	Create nev	v				
Subnet * 🛈	Subnet * () (new) default (10.0.2.0/24)					
Public IP (i)		(new) TestVM-ip Create new				
NIC network security group	0	None  Basic Advanced				
Public inbound ports * (i)	O None	Allow selecte	d ports			
Review + create         < Previous         Next : Management >						

11. On the Management tab, we recommend using the default settings, however you may make changes as needed, and then lick **Next: Advanced**.

Basics	Disks	Networking	Management	Advanced	Tags	Review + create
Configu	re monitor	ring and manager	nent options for yo	ur VM.		
Azure S	Security C	enter				
Azure Se Learn n		nter provides unifi	ed security manage	ement and adva	anced thre	eat protection across hybrid cloud workloads.
🔮 γοι	ur subscrip	tion is protected	by Azure Security C	enter basic pla	n.	
Monito	ring					
Boot dia	agnostics	0	💽 On (	) off		
OS gues	st diagnos	tics (i)	🔾 On (	Off		
Diagnos	stics storag	ge account * 🔅	(new) tec	hpubsdiag 552		$\vee$
			Create new	1		
Revie	w + create	2	< Previous	Next : Advance	ed >	

12. On the Advanced tab, click Next: Tags.

Basics	Disks	Networking	Management	Advanced	Tags	Review + create
Add addit	tional con	figuration, agent	s, scripts or applica	tions via virtual	machine	extensions or cloud-init.
Extension	ns					
Extension	s provide	post-deploymen	t configuration and	l automation.		
Extension	ns (i)		Select an e	xtension to insta	all	
Custom of	data					
			ther data into the v nore about custom			being provisioned. The data will be saved on
Custom d	lata					

Next : Tags >

### 13. On the Tags tab, click **Next: Review + create**.

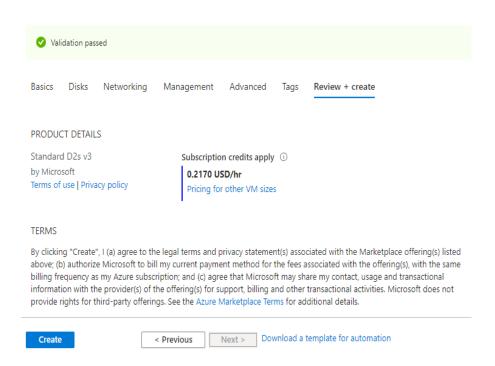
< Previous

Review + create

Basics	Disks	Networkin	g Management	Advanced	Tags	Review + create		
			nable you to catego groups. Learn more		d view consc	olidated billing by app	plying the same t	ag to
Note that	t if you cre	eate tags and	then change resour	ce settings on oth	er tabs, you	r tags will be automa	tically updated.	
Name (	D		Value 🤅	)		Resource		
			:			12 selected	$\sim$	
Review	+ create		< Previous	Next : Review	+ create >			

On the Review + create page, the Validation passed message appears.

14. On the Review + create tab, click **Create**.



Wait until the deployment process is complete.

15. Navigate to Home tab on the top-right corner, and then click **Virtual machines**.

≡	Microsoft Azure	rch resources, se	ervices, and docs (G+	·/)	
	Azure service	S			
	+	<b>P</b>			•
	Create a resource	Virtual machines	Storage accounts	Resource groups	Subscriptions
		2			

16. On the Virtual machines page, select the virtual machine.

Home >			
Virtual machines	>		
+ Add $\bigcirc$ Reservations $\equiv \equiv$ E	dit columns	🛛 Assign tags 🖒	Start 🤇 Restart 🗌
Subscriptions: Archiving			
Filter by name	All resource groups	✓ All types	~
1 of 4 items selected			
Name ↑↓	Туре ↑↓	Status	Resource group $\uparrow_{\downarrow}$
🔲 🖳 ganesh399vm	Virtual machine	Running	Ganesh_arch
TestVM	Virtual machine	Running	techpubs
u5sureshvm	Virtual machine	Running	Ganesh_arch
🔲 🖳 ushau4vm	Virtual machine	Running	Ganesh_arch

The overview page for your virtual machine opens.

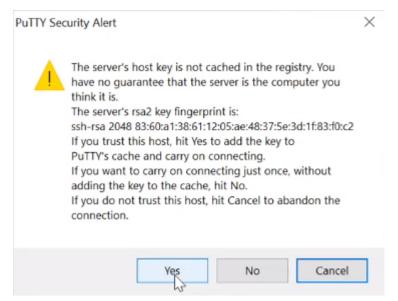
17. On the overview page, select the public IP address and copy it to the clipboard.

Operating system	: Linux (ubuntu 1
Size	: Standard D2s v3 Copy to clipboard pry)
Public IP address	

- 18. To connect to the virtual machine, do the following:
  - a. Search for PuTTY in the search bar next to the start menu, and then click **PuTTY**.
  - b. In the Category pane, select **Session**, and do the following:
    - Host Name (or IP address) Type the IP address or host name.
    - Connection type Select **SSH** as connection type.
    - Port Type the port value. The default port value is 22.

Session	Basic options for your Po	UTTY session					
<ul> <li>Logging</li> <li>Terminal</li> <li>Keyboard</li> <li>Bell</li> <li>Features</li> <li>Window</li> <li>Appearance</li> <li>Behaviour</li> <li>Translation</li> <li>Selection</li> <li>Colours</li> <li>Connection</li> <li>Data</li> <li>Proxy</li> <li>Telnet</li> <li>Rlogin</li> </ul>	Specify the destination you want to	Specify the destination you want to connect to					
	Host Name (or IP address) Connection type: Raw Teinet Rlogin	Port 22 • SSH					
	Load, save or delete a stored sessi Saved Sessions	Load					
SSH ⊢Serial	Close window on exit: Always Never O	Inly on clean exit					

c. If you are connecting to the instance for the first time, PuTTY displays a security alert message asking whether you trust the host you are connecting to. Click **Yes**.



A window opens and you are connected to your Linux instance.



- d. Log into your Linux VM account using the user name and password, and do the following:
  - To change the password for root user, run the following command:

sudo passwd

2. To open the sshd server system-wide configuration file, run the following command:

sudo vi etc/ssh/sshd\_config

3. To permit root login, type Yes. The default option is Yes.

PermitRootLogin yes

 To allow password authentication, type Yes. The default option is No.

PasswordAuthentication no

We recommend that you type Yes, and run the following command:

sudo systemctl restart sshd

- e. Open a new PuTTY session, do the following, and then click **Open**:
  - Host Name (or IP address) Type the IP address or host name.
  - Connection type Select SSH as connection type.
  - Port Type the port value. The default port value is 22.

ategory: Session	Basic options for your Pu	TTV cossion
Logging	Specify the destination you want to	
<ul> <li>Ferminal</li> <li>Keyboard</li> <li>Bell</li> <li>Features</li> <li>Window</li> <li>Appearance</li> <li>Behaviour</li> <li>Translation</li> <li>Selection</li> <li>Colours</li> <li>Connection</li> <li>Data</li> <li>Proxy</li> </ul>	Host Name (or IP address) Connection type: Raw O Telnet O Rlogin	Port 22 • SSH Serial
	Load, save or delete a stored session Saved Sessions Default Settings	Load
– Telnet – Rlogin  _SSH – Serial		Save
	Close window on exit:	nly on clean exit

f. Log into the VM as a root user.

🧬 пола полаз - Р	uTTY	-		×
login as: r Kevboard-in		ion prompts from server:		
Password:				
End of keyb	oard-interactive prom	pts from server		
-	d Sep 2 01:55:34 202			
inux-2d54:~ #				
inux-2d54:~ #				
inux-2d54:~ #	1s			
ICEauthority	.xauthTMwOhi	Videos		
Xauthority	.xautheJo4m0	arcserverha		
bash history	.xsession-errors-:0			
cache	Desktop			
config	Documents	bin		
	Downloads	inst-sys		
esd_auth	Music	rhal8		
gnupg	Pictures			
local	Public			
viminfo	Templates			
linux-2d54:~ 🕯				

# **Install Engine on Replica**

To install Engine on Replica server, see Installing Engine.

### **Create Full System Scenario for Microsoft Azure**

Arcserve Live Migration supports both Windows and Linux for Full System scenario. If the source server is Windows, then the Virtual Appliance (VA) must be Windows. If the source server is Linux, then the VA must be Linux as well.

Before you create a scenario, add Azure Cloud Account in Continuity Suite Manager. For more information see, <u>Configure Azure Cloud</u>.

To add an Azure Cloud Account in Continuity Suite Manager, follow these steps:

 On the Continuity Suite Manager, navigate to Cloud > Manage Cloud Accounts.



2. On the Manage Cloud Accounts screen, click Add.

Manage Cloud Accounts	×
	Add
	Update
	Remove
	Close

- 3. On the Add Cloud Account screen, enter the following details in the required fields, and then click **OK**:
  - Cloud Account Provide the cloud account, which is a user name you have defined.
  - Subscription ID Provide the Subscription ID.
  - Tenant ID Provide the Tenant ID.
  - Application ID Provide the Application ID.
  - Client Key Provide the Client Key.

**Note:** For more information about how to configure the Azure account details, see <u>Configure Microsoft Azure</u>.

Add Cloud Account		$\times$
Cloud Provider:	Microsoft Azure 🗸	
Cloud Account:		
Subscription ID:		
Tenant ID:		
Application ID:		
Client Key:	1	
	Use proxy to connect to the cloud service	
	<u>O</u> K <u>C</u> ancel	

The Azure account for Live Migration is now added.

### **Creating Full System Scenario for Microsoft Azure**

This section provides instructions on how to create full system scenario for Microsoft Azure. Before you begin, make sure to register and create an account in Azure.

#### Follow these steps:

- 1. Open the Arcserve Continuity Suite Manager, navigate to **Scenario**>**New** or click the **New Scenario** button to launch the wizard.
- On the Welcome to the New Scenario Wizard screen, select Create a New Scenario, select a Scenario Group from the list, and then click Next.

© Scenario Creation Wizard	- o x	
Welcome Product Type Scenario Setup Scenario Verification	Welcome to the New Scenario Wizard           This wizard will help you create a new scenario, either from scratch or using a predefined template. It may also be used to create new templates. When the scenario creation is finished, you will be able to run the scenario.           To exit the wizard and continue configuration manually from any step, click the Finish button.	
Run Scenario	Create a New Scenario Create a New Template Create a New Scenario from a Template Assign a Scenario Group (select existing one or enter a new group name) Scenarios	
	Back Next Einish Cancel	

3. On the Select Server and Product Type screen, select Full System, High Availability Scenario (HA), and then click **Next**.

**Note:** To perform Assured Recovery testing, select the **Integrity Testing for Assured Recovery (AR)** check box.

0	Scenario Creation Wizard
<ul> <li>✓ Welcome</li> <li>▶ Product Type</li> <li>Scenario Setup</li> </ul>	Select Server and Product Type Select a licensed server type, product type and a required task below. If the desired option is not listed, please do one of the following: If you have an appropriate license key, exit the wizard by clicking Cancel and then click Help, Register. If you do not have an appropriate license key and you are interested in obtaining one, please contact your software provider.
Scenario Verification Run Scenario	Select Server Type File Server Custom Application Custom Application Custom Application Custom SQL Server Custom Stare Point Service Custom Stare Point Server Cus
	Select Product Type O Replication and Data Recovery Scenario (DR) High Availability Scenario (HA) Content Distribution Scenario(CD) Integrity Testing for Assured Recovery (AR) Integration Options None Arcserve Backup
	Back Next Einish Cancel

4. On the Master and Replica Hosts screen, do the following, and then click **Next**:

Scenario Creation Wizard	×
<ul> <li>✓ Welcome</li> <li>✓ Product Type</li> <li>Scenario Setup</li> </ul>	Master and Replica Hosts Enter the hostname or IP address for the Master (source) host. Enter the hostname or IP address for Vitual Platform host which hosts vitual machines. (Not applicable for Hyper-V scenarios) Enter the hostname or IP address for the Appliance host which is one of vitual machines hosted by Vitual Platform and with Arcserve Continuity Suite Engine installed.
Scenario Verification Run Scenario	Master Setting Scenario Name AzureFullsystem Master HostnameIP Master OS Type Linux
	Replica Setting Server Type Microsoft Azure Virtual Platform HostnameIP portal.azure.com Port 443 © TLS SSH O TCP Appliance HostnameIP Port 25000
	Assessment Mode Verify Arcserve Continuity Suite Engine on Hosts Back Next Finish Cancel

- Scenario Name Enter a scenario name. The default name is based on the scenario type, for example, Full System.
- Master Hostname/IP Enter the IP address of a physical machine you want to protect.
- Master OS Type Select Linux as the Master OS Type.

- Server Type Select Microsoft Azure as the Replica server.
- Appliance Hostname/IP and Port Browse the Appliance Hostname/IP to select the Replica server.

**Note:** Select the **Verify Arcserve Continuity Suite Engine on Hosts** check box to verify the connectivity between Master and Replica. It verifies that the engines are installed on the Master. To skip verification, clear the check box.

On the Cloud Instance Selection dialog, from the Location drop-down list, select the location. The list refreshes to display the relevant Azure instances. From the list, select the Azure instance you had created, and then click **OK**.

Cloud Instance Select	ction							×
Cloud Provider: Cloud Account:		zure	× •	Location:	southe	vastasia	~	
Resource ID /subscriptions/1171 /subscriptions/1171	11a32-9_	ame	IP	-		Resource Group RHA SomaRHA		
Only the manage	ed virtual m	achines will be listed h	ere			Refresh	OK	Cancel

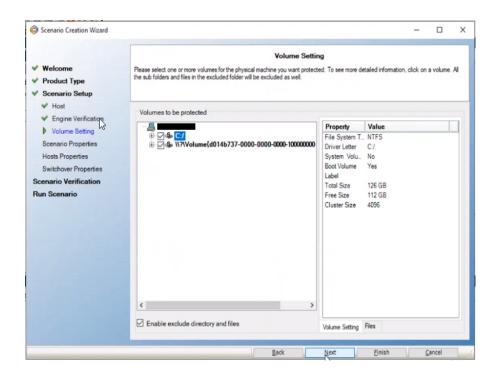
5. On the Engine Verification screen, the User credentials dialog appears. Enter the user name and password, and then click **OK**.

				Engine Ve	rificatio	on			
<ul> <li>Welcome</li> <li>Product Type</li> <li>Scenario Setup</li> <li>Host</li> <li>Engine Verification</li> <li>Volume Setting</li> <li>Scenario Properties</li> <li>Hosts Properties</li> <li>Switchover Properties</li> <li>Scenario Verification</li> <li>Run Scenario</li> </ul>	ß	The system autor To install an Engl Install ( 그 몰 10.60.15 고 몰 52.163.1	User account for h User name: Password: Domain: User account for h User name: Password: Domain: For Windows Us	set *	×	Logon Account	ed hosts. Started No No	64-bit OS No No	Port
		Total: 2		DK Cancel		Error: 2	In	istall F	lefresh

Wait for Engine verification to complete, and then click **Next**.

The system automatically checks To install an Engine on a host, sel	whether Arcserve Con	Engine Verificati inuity Suite Engine is i click Install.		ed hosts.		
Install On Hosts	Server Status	Current Version	Logon Account	Started	64-bit OS	Port
	Installed	18.3.0.7025	root	Yes	Yes	25000
	Installed	18.3.0.7025	root	Yes	Yes	25000
Total: 2 Selected	2 Suc	cess: 2	Error: 0			
	☑ 🔒	Installed	Installed 18.3.0.7025	Installed 18.3.0.7025 root	Installed 18.3.0.7025 root Yes	Installed 18.3.0.7025 root Yes Yes

6. On the Volume Setting screen, select one or more volumes for the physical machine you want to protect, and then click **Next**.



7. On the Scenario Properties screen, click Next.

Scenario Creation Wizard		- 0	>
	Scenario Properti	es	
Welcome	The scenario properties are configured here. You can also configure these prop	erties after the completion of the wizard steps.	
Product Type	The recommended default values are already listed. Before changing these valu Administration Guide.	jes, please refer to the Arcserve Continuity Suite	
Scenario Setup			
✓ Host	Property	Value	
<ul> <li>Engine Verification</li> </ul>	B General		
Volume Setting			
Scenario Properties	Event Notification		
Hosts Properties	🕀 Report Handling		
Switchover Properties			
cenario Verification			
Run Scenario			
			_
	Back	Next Finish Cancel	

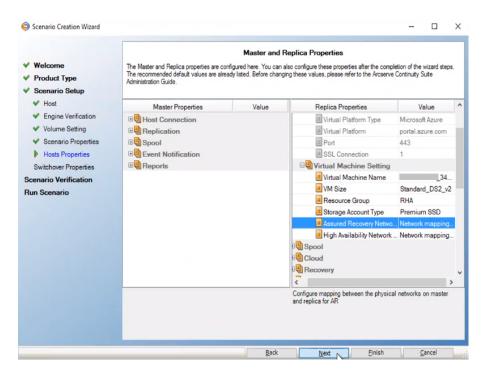
- 8. On the High Availability Network Adapter Mapping dialog, enter the following details, and then click **OK**:
  - Choose virtual network Select virtual network from the drop-down list.
  - Replica Network Adapter Select the Replica network adapter from the drop-down list.

- Security Group Select the required security group from the dropdown list.
- IP Address Select one of the following:
  - Assign static private IP Address
  - Enable public IP address
    - If you want to create a new public IP address, enable the Create a new public IP address option.
    - If you want to connect to the virtual machine from outside your network, enable the Use an existed public IP address option.

Augh Availability No.	etwork Adapter Mapping				-		$\times$				
Please set network map	pings between master adap	oter and replica adapter.									
Choose virtual network	FSHAWin-rsg1-vnet	FSHAWin-rsg1)	$\sim$								
	Master Network Adapter			Replica Network Adapte	ır		_				
▶ eth0			default   10.0.3.0/2/	4			~				
Master Adapter Inform	nation	Replica adapter settir	g method								
eth0		Please select the method		configuration. nd used a different subnet, the	an warifu th		ble of				
		the switchover VM.	ang table on the master a	na asea a amereni sabrier, rik	ar vealiy u	le loute ta	Die OI				
DHCP Enabled		<ul> <li>Apply master adap</li> </ul>									
IP Address		O Customize adapter information									
Subnet Mask		IP Settings DNS&WINS Microsoft Azure									
Gateways											
DNS Server											
UNS Server		Security Group					_				
A DESCRIPTION OF THE OWNER OWNER OF THE OWNER OWNER OF THE OWNER		Security Group		FSHAWinVA1-nsg	3		$\sim$				
		IP Address									
		Assign static pr	vate IP Address	0. 0. 0. 0							
		Please make sure th	ne private IP address is	in the range of the subnet IF	address	es and is					
		an available address	s.								
		Enable public I	P Address								
		<ul> <li>Create a new p</li> </ul>									
		O Use an existed	public IP address								
				QK		Cano	el				

 On the Master and Replica Properties screen, navigate to Virtual Machine -> Virtual Machine Setting, select Assured Recovery Network, and then click Next.

**Note:** The **Assured Recovery Network** option displays only If you have enabled the **Integrity Testing for Assured Recovery (AR)** option on the Select Server and Product Type screen.



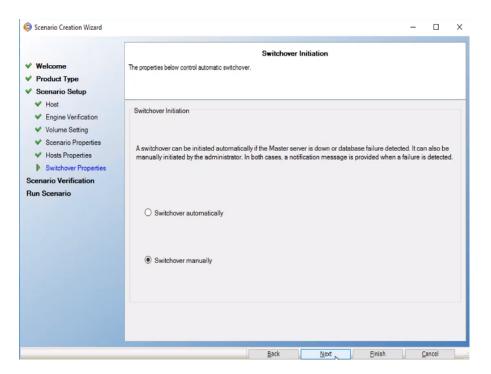
- 10. On the Assured Recovery Network Adapter Mapping dialog, enter the following details, and then click **OK**:
  - Choose virtual network Select virtual network from the drop-down list.
  - Replica Network Adapter Select the Replica network adapter from the drop-down list.
  - Security Group Select the required security group from the dropdown list.
  - IP Address Select one of the following:
    - Assign static private IP Address
    - Enable public IP address
      - If you want to create a new public IP address, enable the Create a new public IP address option.
      - If you want to connect to the virtual machine from outside your network, enable the Use an existed public IP address option.

Please set network map	pings between master	adapter and replica adapter.										
Choose virtual network	FSHAWin-rsg1-v	met (FSHAWin-rsg1) 🗸										
	Master Network Ada	apter	Replica Network Adapter									
▶ eth0		default   10	0.0.3.0/24									
Master Adapter Inform	nation	Replica adapter setting method										
eth0	nation	Please select the method to set the target	adapter configuration.									
etho		If you customized the routing table on the master and used a different subnet, then verify the route table of the switchover VM.										
HCP Enabled		Apply master adapter information	1									
P Address		O Customize adapter information										
Subnet Mask		IP Settings DNS&WINS Microsoft Azure										
Gateways												
ONS Server		Security Group										
0.00.1107		Security Group	FSHAWinVA1-nsg 🗸									
		IP Address										
		Assign static private IP Address	s 0. 0. 0. 0									
		Please make sure the private IP address is in the range of the subnet IP addresses and is an available address.										
		Enable public IP Address										
		Create a new public IP address										
		<ul> <li>Use an existed public IP address</li> </ul>	ess									

11. On the Switchover Properties screen, accept the default values or modify the values, and then click **Next**.

Scenario Creation Wizard		- 0
Welcome     Product Type	Switchover Properties Switchover properties will be configured in this step. The recommended default value before modifying the current settings.	
<ul> <li>✓ Scenario Setup</li> <li>✓ Host</li> </ul>	Property	Value
<ul> <li>Engine Verification</li> <li>Volume Setting</li> <li>Scenario Properties</li> <li>Hosts Properties</li> <li>Switchover Properties</li> <li>Scenario Verification</li> <li>Run Scenario</li> </ul>	Switchover     Switchover     Be Hosts     Be Network Traffic Redirection     Be Is Alive     Be DB Management     Be Action upon Success	
	Back	Finish Cancel

12. On the Switchover Initiation screen, specify if you want the switchover to start automatically (Switchover automatically) or manually (Switchover manually), and then click **Next**.



13. On the Scenario Verification screen, click Next.

	Scenario Verification		
Velcome Product Type	The system automatically verifies the scenario settings to help ensure proper operation. Any errors must be resolved before continuing. It is also strongly recommended that all warnings should be resolved. If conti warning, ensure their potential impact is fully understool. After making any necessary changes, click Retry to repeat the so		
Scenario Setup	varining, cisure their potential impact is fully understood. After making any necessary changes, click netry to repeat the sch verification.	CINDIO	
✓ Host	WARNING: Can't ping the from from		
<ul> <li>Engine Verification</li> </ul>	Are you sure you want to run scenario 'AzureFullsystem'?		
Volume Setting	Are you sure you want to run scenario 'Azurerulisystem'?		
<ul> <li>Scenario Properties</li> </ul>			
<ul> <li>Hosts Properties</li> </ul>			
Switchover Properties			
Scenario Verification			
un Scenario			
	Retry	Morel	nfo.

14. On the Scenario Run screen, to start synchronization immediately and activate the scenario, click **Run Now**. To save and run the scenario later, click **Finish**.

<ul> <li>Welcome</li> <li>Product Type</li> <li>Scenario Setup</li> <li>Host</li> <li>Engine Verification</li> </ul>	The scenario has been configured and automatically after pressing the Run No Product type Server type	is ready to run. Prei w button. To run so	Fun Nov to start the scenario. Initial data synchronization will start enario later press the Finish button.     High Availability Scenario (HA)     Full System			
<ul><li>✓ Volume Setting</li><li>✓ Scenario Properties</li></ul>	Integrity Testing for Assured R	Recovery	On			
<ul> <li>Hosts Properties</li> <li>Switchover Properties</li> </ul>	Replication mode		Online			
Scenario Verification	Master					
Run Scenario	Name					
	Spool size (MB)	Unlimi	ted			
	Spool path	[INSTA	LLDIR)/tmp/spool			
	Replica					
	Name	18118	1.021.020			
	Spool size (MB)	Unlimi	ted			
	Spool path	[INSTA	LLDIR)/tmp/spool	_		
	Master Root Directories		Replica Root Directories			
	1	>	1			

The synchronization between Master and Replica servers starts. Wait for synchronization to complete.

icenario view							+ † X	h, Statistica 🗸 🖗
Scenarios								Scenario Statistics
- So	mario	5	State	Product	Sen	rer 🛛	Mode	
AzureFulls	stem	Runnir	ıg ŀ	WAR	Full Syste	em Onl	ine	1.H
Hos	5	Changed	Sent Data	Sent Files	Received Data	Received Files	in spool	Active Stand-By
e 👩		1.88 KB	0.00 Bytes		0 -		10.89 MB	
Δ								
new group								The of good         The of good
vents								••
Message ID	Sequence	Severty	H	Host/Scenario		Time		Event
SR00402	243	1 Significa	nt E	52.163.116.	191	<b>()</b> 9/1/	2020 6:20:16 AM	Suspend Is Alive checks
SR00401	242	1 Significa	nt (	52.163.116.	191	i 9/1/	2020 6:20:16 AM	Resume Is Alive checks
R06001	241	🛓 Info	8	52.163.116.19	1	~	020 6:20:04 AM	The replica environment is ready for use.
R03166	240	1 Info		52.163.116.19		·	020 6:19:46 AM	Mounting dak /subscriptions/11711a32-9214-4cdb-a232-2452958b18b1/resourceGroups/RHA/providess/Microsoft Compute
R03164	239	1 Info		52 163 116 19		<b>v</b>	020 6:19:37 AM	Creating disk 253433043835_2 882#Deb59aecc5c
R06000	238	🛓 Info	8	52.163.116.19	1	<b>1/2</b> 9/1/2	020 6:19:37 AM	Preparing replica environment

### **Perform Assured Recovery Testing**

**Note:** Perform the Assured Recovery test only if you have enabled the **Integrity Testing for Assured Recovery (AR)** option on the Select Server and Product Type screen.

You can fully automate the Assured Recovery tests and schedule these tests as often as needed. On completion, an alert is sent to the appropriate personnel with the test status. You can also trigger additional actions such as taking a VSS snapshot of the data or running a backup. Alternatively, you can perform AR testing in a nonscheduled mode, and initiate the tests automatically or manually.

#### Follow these steps:

- 1. On the Arcserve Continuity Suite Manager, verify that the AR scenario is running.
- On the Standard toolbar, click the Replica Integrity Testing button, or rightclick the Replica and select Replica Integrity Testing from the shortcut menu.

Replica Integrity Testing for Assured Replica testing User defined script Off Action on successful test Create Shadow Copy (VSS) Off User defined script Off Manual testing Selecting "Manual testing" will stop application of new changes on the replica. During testing replication will continue, but new changes will spool on the replica, rather than be applied. Important! To stop the manual testing press "Replica Integrity Testing" button once again. If you do not, new changes will continue to spool on the Replica until the space allocated to spool is consumed. If that occurs resynchronization will be required. Start testing when all journals are applied Are you sure you want to start Integrity Testing on host 54.81.119.88 ? ок Cancel

The Replica Integrity Testing for Assured dialog opens.

3. To start automatic AR test using the existing configuration, click **OK**.

Notes:

- To start the AR test manually, select the Manual testing checkbox, and then click OK.
- To change the test configuration before running the test, click Cancel.
   For more information, see Configure Assured Recovery Properties.
- Before the test begins to run, Arcserve Live Migration verifies that no synchronization, AR test or replication suspension tasks are in progress on any of the hosts that participate in the current scenario.

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Scenarios							Scenario Statistica
	Scenario	State	Product	Serv	er	Mode	
🛛 🕨 AzureFu	lsystem	Running	HAVAR	Full Syste	m Onlin	e	
	losts	Changed Sent	t Data Sent Files	Received Data	Received Files	In spool	Active Stand-By
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venta							0 % of good         0 % of good         0 % of good         0 % of good         0 wyadd         42 7 18         Integrity Testing in progress         0 wyadd         42 7 18         Poot Directories         Not Directories         National Availability Properties         Statistics
Message ID	Sequence	Severty	Host/Scenario		Time		Event
R03167	252	i hfo	52.163.116.191			0 6:53:02 AM	Diamounting disk //subscriptions/11711is32-9214-4cdb-e232-2452955b18b1/resourceGroups/FiHA/providers/Morosoft Comput //subscriptions/11711is32-9214-4cdb-e232-2452955b18b1/resourceGroups/FiHA/providers/Morosoft Comput
R00343	251	👔 hfo	52.163.116.191		(1) 9/1/202	0 6:53:01 AM	Padecrooms/11/11a32-3214-4cdb-8232-24-0233301ab (7#590/06/3/00/06/7/04/providers/Microsoft.Comput Replica 52 163.116.191 suspended for Integrity testing
R00275	250	1 hfo	52.163.116.191		•	0 6:53:01 AM	Starting Integrity Testing (From Soma CS-114 thatest.com by user thatest.com/Administrator)
NUU2/0			AzureFullsystem		10 0/1/202	0.0.17.01.011	Posting Synchronization report created at '9/1/2020 06:44.03' to Reports
M00405	249	🕺 Info	Evaneruisystem	1	0 3/ 1/202	0 2:47:24 PM	Posting Synchronization report created at an Inzuzu uo:44.03 to Reports
	249 247	Significant	52.163.116.1			02:47:24 PM 20 6:44:27 AM	Posing synchronization report created at an 1/2/20 URANNUS to reports Resume Is Alive checks

After the verification completes, the AR test begins.

The steps of the test are displayed as messages in the Event pane.

After the test is finished, the Replica is automatically restored to the same state it was when the replication was suspended. The changes that were accumulated in the spool gets applied, and the replication resumes.

cenario view							+ 9 X	h, Statistics		<b>.</b>
Scenarios								Scenario Statistics		
- 5	icenario		State	Product	Sen	rer 🛛	Mode			
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н	osta	Changed	Sent Data	Sent Files	Received Data	Received File	s in spool	<u>Active</u>		Stand-By
6 💆		15.22 KB	3.20 GE	124728			0.00 Bytes			
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🖗 New group								=		
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								🕞 Root Directories 📄 Properti	es 🌃 High Availability Properties 🛄 Statistics	
enta								Carros Directories Carropent	es 📶 unit virginating (III) canana)	•
usage ID	Sequence	Severty	(	Host/Scenario		Time		Event		
100401	275	Significa		52.163.116.1	91		/2020 7:13:37 AM		Is Alive checks	
R00401	274	Significa	unt j	52.163.116.1	91	~	/2020 7:13:37 AM	Resume	Is Alive checks	
R00104	273	3 Significa	nt (	52.163.116.1	91	i 9/1	2020 7:13:37 AM	Replicat	ion to replica 52,163,116,191 resumed	
800086	272	e Error		52.163.116.1	91	1 9/1	2020 7:13:37 AM	Receive	d command Resume while not suspended	
R00105	271	🛔 Significa	ant (	52.163.116.1	91	<u>(</u> 9/1,	/2020 7:13:37 AM	Starting	replication resume [From Soma-CS-114.rhatest.com b	y user rhatest.com\Administra
R00104	270	👔 Significa	-	52.163.116.1	01		/2020 7:13:37 AM	Derbert	ion to replica 52.163.116.191 resumed	

By default, after the AR test is performed, an Assured Recovery Report is generated.

#### Notes:

- If the Assured Recovery Report is not generated, on the Replica Properties list, under the Reports group, check the value of the Generate Assured Recovery Report property.
- To view the report, see <u>View a Report</u>.

All the tasks that were performed during the AR test are listed in the AR Report, along with their activation time and status.

## **Perform Cut off/Switchover**

Switchover (or failover) is the process of changing roles between the Master and Replica, that is, making the Master server the standby server, and the Replica server the active server.

Switchover can be triggered automatically by Arcserve Live Migration when it detects that the Master is unavailable (failover). Alternatively, Arcserve Live Migration can simply alert you to the problem, and then you can manually initiate switchover from the Manager.

#### Follow these steps:

- 1. Open the Manager and then select the required scenario from the Scenario pane. Verify if it is running.
- 2. On the standard toolbar, click the **Perform Switchover** button, or select the Perform Switchover option from the **Tools** menu.

A confirmation message appears.

?	The mapped network adapters of master will be disabled and need to be enabled manually when the master is back. Are you sure you want to perform a Switchover?										
	Do not wait until all journals are applied										
	Yes No										

- 3. [Optional] Select the **Do not wait until all journals are applied** check box to immediately perform switchover even before all journals are applied. If you do not select this check box, the switchover process gets initiated only after all journals are applied.
- 4. Click **Yes** on the confirmation message. This procedure initiates a switchover from the Master server to the Replica server.

During switchover, the Event pane gives detailed information about the switchover process.

nario view							₩ # X	1, Statistics 🔹 👻
Scenarios								Scenario Statistics
- Scenario		State Product Server					Mode	
AzureFullsy	stem	Switch	over	HA/AR	Full Syste	em Onli	ne	tutu eta la
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Δ		14.39 KB			3.20 GB	124728	0.00 Bytes	
								Red Directories September 20 Properties September 20
nts								
ssage ID	Sequence	Severity		Host/Scenario		Time		Event
00402	278	👔 Significa	nt (	52.163.116.1	191	<b>(</b> 9/1/2	020 7:14:44 AM	Suspend Is Alive checks
00182	277	Significant		10.60.15.228		(i) 9/1/2020 3:17:09 PM		The mapped network adapters of master will be disabled and need to be enabled manual when the master is back.
100181 276 🛓 Significant		nt (	8 10.60.15.228	3	<b>()</b> 9/1/2	020 3:17:09 PM	Starting switchover procedures [From Soma-CS-114.rhatest.com by user rhatest.com/Vdministrator]	
00401	275	🛔 Significa		52.163.116.1		<u> </u>	020 7:13:37 AM	Resume ta Alive checka
00401 00104	274 273	Significa		52.163.116.1 52.163.116.1		<b>V</b>	020 7:13:37 AM 020 7:13:37 AM	Resume is Alive checks Replication to replica 52.163.116.191 resumed

After the switchover is complete, the scenario gets stopped.

**Note:** The only case in which the scenario may continue to run after switchover is when **automatic reverse replication** is defined as **Start automatically**.

When the switchover is completed, the Event pane displays the *Switchover completed* message.

cenario view						👻 🕂 🗙 🌆 Hi	h Availability Properties	+
Scenarios							Property	Value
-	Scenario	State	e Product	Ser	ver	Mode 🔳	Switchover	
AzureFul	llsystem	Connectin	g HA/AR	Full Syst	ern Onli	ne 🔍	Hosts	
H	Hosts	Changed Se	ent Data Sent Files	Received Data	Received Files	In spool 🛛 🕀	Network Traffic Redirection	
8							Is Alive	
A						Œ	DB Management	
New group						Œ	Action upon Success	
						CTD R	oot Directories 🍓 Properties 🎬 High Availability Properties	
nts								•
essage ID	Sequence	Severty	Host/Scenario		Time		Event	
R00320	297	🛔 Significant	<b>52.163.116</b>	191	ii 9/1/2	2020 7:20:57 AM	Switchover completed. The Azure virtual machine v	with same name of master is currently
06020	296	🛔 Ho	52.163.116.19	1	1 9/1/2	020 7:20.57 AM	active[/subscriptions/11711a32-9214-4cdb-a232-2 The vitual machine is now online.	4525550 160 1/resourceGroups/RHA/pr
			C10		- · · ·			
06021	295	🔹 Info	E 52,163,116,19	1	1 9/1/2	020 7:20:41 AM		
	295 294	1 hfo 1 hfo	52.163.116.19		U	020 7:20:41 AM 020 7:20:41 AM	Checking the alive status of the virtual machine.	
00297	294	👔 hfo	52.163.116.19	1	<b>i</b> 9/1/2	020 7:20:41 AM	Checking the alive status of the virtual machine. Enable Full System resources successfully	
		-	CD	1	<b>i</b> 9/1/2		Checking the alive status of the virtual machine.	

Now, the original Master becomes the Replica, and the original Replica becomes the Master.